

REMARKS

Claims 2-45, 47-56, 58-62 and 65-77 are pending in the present application. Claims 2-45, 47-56 and 58-62 are allowed. The allowability of claims 2-45, 47-56 and 58-62 is noted with appreciation. Claims 65, 71 and 73 have been amended. The changes made are primarily typographical or grammatical in nature. These amendments add no new matter to the application.

In the Office Action mailed 1/5/05, the Examiner rejected claims 65-77 under 35 U.S.C. §103(a).

Applicants respectfully respond to this Office Action.

Claims 65-66, 71 and 73-74

In paragraph 2 on page 2, the Examiner rejected claims 65-66, 71, and 73-74 under 35 U.S.C. §103(a) as being unpatentable over Kou (U.S. Patent No. 5,303,234) in view of Goodings et al. (U.S. Patent No. 5,377,192).

In paragraph 2 on page 2, the Examiner states “In the claim 65, see Figure 8, Kou discloses receiving portions of a multi-slot packet at a first data rate, each portion received during a separate time slot (TS #1, TS #2, TS #3) . . .” Applicants respectfully disagree with the Examiner’s interpretation of the Kou and Goodings et al. references. Kou discloses “a time-division multiple access communication system in which user packets are transmitted on a randomly selected timeslot for accessing a central station.” Col. 1, lines 7-10 of Kou. Specifically, Kou discloses “a contention technique associated with collision of data due to simultaneous packet transmissions from contending users.” Col. 1, lines 10-14 of Kou. The function of the slot controller 55 disclosed in col. 6, lines 14-18 of Kou is “to control retransmission of a packet which was previously transmitted and corrupted by collision with other packets.” Col. 5, lines 28-30 of Kou. The three timeslots referred to by the Examiner, TS#1, TS#2, and TS#3, are timeslots in which three different packets from three different terminal stations are received by a central station. Col. 6, lines 6-24 of Kou.

Thus, the three timeslots do not receive portions of a multi-slot packet as taught by the present apparatus and method. Instead three different packets from three different terminals are received by a central station. For example, Terminal station 2₁ retransmits the packet A'₁ on timeslot TS #1. Terminal station 2₂ retransmits the packet B'₁ on timeslot TS #3. Terminal station 2₃ retransmits the packet C₁ on timeslot TS #2. Col. 6, lines 14-19 of Kou. Therefore, claim 65 is not obvious in light of Kou and Goodings et al.

Claims 71 and 73

In paragraph 3 on page 3, the Examiner states "In the claims 71, 73, see figure 8, Kou discloses receiving portions of a multi-slot packet at a first data rate, each portion received during a separate time slot (TS #1, TS #2, TS #3) . . ." As stated above with respect to claim 65, Kou does not disclose these features. Therefore, claims 71 and 73 are not obvious in light of Kou and Goodings et al.

Claims 66 and 74

In paragraph 4 on page 4, the Examiner states with respect to claims 66 and 74, that Goodings discloses sending a continue-repeat message (see col. 12, lines 48-53, col. 17, lines 7-18, lines 47-53). However, the Examiner fails to point out where this message is. Only an ACK and a NACK message are mentioned in col. 12, lines 47-53 and col. 17, lines 7-18 and lines 47-53 of Goodings et al. Since, the Examiner has already argued in the first paragraph on page 4, that the ACK signal disclosed in Goodings et al. is the stop-repeat message of the present apparatus and method, it appears that the Examiner is referring to the NACK message.

In the present patent application, the subscriber station sends a Continue-Repeat signal to the serving base station to request that the data for a packet be retransmitted in an additional time slot. Page 20, lines 34-36 of the specification. The Continue-Repeat message of claims 66 and 74 is sent when the subscriber station requests that a packet be repeated over a limited number of time slots after the maximum time slots have already been transmitted. Page 20, lines 28-31.

On the other hand, a NACK refers to a negative acknowledgement message. Col. 17, lines 46-47 of Goodings et al. It is used when an expected transmission fails to appear in a predefined slot. Col. 16, lines 55-57 of Goodings et al. A retransmission is scheduled when a

NACK is received. Col. 17, lines 8-13 of Goodings et al. However, unlike the Continue-Repeat message of claims 66 and 74, the maximum time slots do not have to have already been transmitted before a NACK is transmitted in Goodings et al.

Thus, the NACK message disclosed in Goodings et al. is not the Continue-Repeat message of the present patent application. Therefore, claims 66 and 74 are not obvious in light of Kou and Goodings et al.

Claims 67, 75 and 76

In paragraph 5 on page 4, the Examiner rejected claims 67, 75, and 76 under 35 U.S.C. 103(a) as being unpatentable over the combined system (Kou-Goodings) in view of Kobayashi et al. (U.S. Patent No. 2003/0179719). The Examiner states “In the claims 76, 75, 67, the combined system discloses the limitations of claim 73 above.” As stated above with respect to claims 65, 71 and 73, Kou does not disclose “receiving portions of a multi-slot packet at a first data rate, each portion received during a separate time slot . . .” Therefore, claims 67, 75 and 76 are not obvious in light of Kou, Goodings et al. and Kobayashi et al.

Claims 68-69, 72 and 77

In paragraph 6 on page 5, the Examiner rejected claims 68-69, 72 and 77 under 35 U.S.C. 103(a) as being unpatentable over Goodings (U.S. Patent No. 5,377,192) in view of Sabaa et al. (U.S. Patent No. 6,389,016 B1). The Examiner admits that Goodings is silent to disclosing receiving a stop-repeat message prior to expiration of the maximum number of time slots for transmission of the multi-slot packet; and terminating transmission of the multi-slot packet. The Examiner then argues that Sabaa discloses in Figure 5 receiving a stop-repeat message (acknowledgement message) prior to expiration of the maximum number of time slots for transmission of the multi-slot packet; and terminating transmission of the multi-slot packet (see col. 9, lines 26-30).

Applicants respectfully disagree with the Examiner’s interpretation of the Sabaa et al., Kou and Goodings et al. references. FIG. 5 represents an example of successful transmission of multiple groups from sender 70 and receiver 72. col. 9, lines 19-20. In col. 9, lines 26-30 of Sabaa et al., a positive acknowledgement is sent when the last packet of the second group, Group

1, has been received. Col. 9, lines 29-32. Similarly, a positive acknowledgement 84 for the first group, Group 0, is received by the sender 70 after the last packet 80 has been received. Col. 9, lines 24-30. Thus, Sabaa does not disclose “receiving a Stop-Repeat message prior to expiration of the maximum number of time slots for transmission of the multi-slot packet.”

In paragraph 7 on page 6, the Examiner states with respect to claim 69 “Sabaa discloses after expiration of the maximum number of transmission of the multi-slot packet, receiving a continue-repeat message (NACK) (see figure 1, col. 1, lines 35-40, col. 9, lines 26-30).” Applicants respectfully disagree with the Examiner’s interpretation of the Sabaa et al. reference.

Sabaa discloses that “in a traditional system, a negative acknowledgement message is sent by the receiving entity for *each* and *every* received out-of-sequence packet. (emphasis added). Col. 1, lines 60-62 of Sabaa. There is no restriction that the NACK be sent after expiration of the maximum number of transmissions of the multi-slot packet. Therefore, claims 68-69, 72 and 77 are not obvious in light of Kou, Goodings et al. and Sabaa et al.

Claim 70

In paragraph 8 on page 6, the Examiner rejected claim 70 under 35 U.S.C. 103(a) as being unpatentable over the combined system (Goodings-Sabaa) in view of Kobayashi et al. (U.S. Patent No. 2003/0179719). The Examiner states that the combined system discloses the limitations of claim 73 above. However, the Examiner admits that the combined system (Goodings-Sabaa) is silent to disclosing the maximum number of time slots for transmission is based on the first data rate. The Examiner then argues that Kobayashi et al. discloses the maximum number of time slots for transmission is based on the first data rate (see col. 2, [0031][0032]). Applicants respectfully disagree with the Examiner’s interpretation of the Kou, Kobayashi et al. and Goodings et al. references. Kobayashi et al. discloses a “whether or not to transmit the predetermined packet at a second transfer rate lower than the first transfer rate . . .” in paragraph [0032]. There is no mention of a maximum number of time slots in paragraphs [0031] and [0032] of Kobayashi et al. Therefore, claim 70 is not obvious in light of Goodings et al. and Sabaa in view of Kobayashi et al.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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